

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (Currently Amended) A display device driving circuit comprising: which includes
_____ a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines for displaying an image according to the display data with respect to pixels which are disposed in a matrix; and
_____ a control section including a set section in which is set each of an image display area and one or more non-image areas, each of the one or more non-image areas comprising a plurality or more of adjacent scanning signal lines, and which wherein said control section is configured and arranged to determine from inputs thereto if the image data to be outputted corresponds to any of the one or more non-image areas and so as to output outputs a transition instruction signal for each of the one or more non-image areas when it is so determined, and
wherein said display device driving circuit comprising: scanning signal line driving section includes a control means for controlling scanning line signal outputs from said scanning signal line driving section,
said control means being configured and arranged to switch for switching, from successive output to simultaneous output, the output of the display scanning signals to the respective scanning signal lines from the scanning signal line driving section, based on the transition instruction signal from said control section, so as to cause a transition from successive output of display scanning signals to simultaneous output of display scanning signals, and to

control controlling the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines based on the received transition instruction signal, so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more scanning signal lines of each of the one or more non-image areas until receipt of an instructional signal of a start of a next successive output for successively outputting the display scanning signals.

2. (Original) The display device driving circuit as set forth in claim 1, wherein said scanning signal line driving section includes a plurality of serially connected shift register sections for outputting the display scanning signals with respect to the respective scanning signal lines.

3. (Currently Amended) The display device driving circuit as set forth in claim 1, comprising deactivating means for deactivating an operation of the scanning signal line driving section based on a synchronize signal and the transition instruction signal for displaying the image, where in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated.

4. (Currently Amended) The display device driving circuit as set forth in claim 1, wherein said control means includes an unscanned area recognizing section for recognizing an unscanned area based on the transition instruction signal, and wherein said control means

controls the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are outputted only to the plurality or more of those scanning signal lines which correspond to the unscanned area as recognized by the unscanned area recognizing section.

5. (Currently Amended) The display device driving circuit as set forth in claim 2, wherein said scanning signal line driving section has a plurality of scanning starting positions which are set in a vertical direction, and successively outputs, among the plurality of scanning starting positions, the display scanning signals to scanning signal lines which correspond to one of the one or more non-image areas, which is an area from a scanning starting position therein in the vicinity of a front portion of the image display area to the image display area, and to scanning signal lines which correspond to the image display area, and thereafter simultaneously outputs the display scanning signals to the plurality or more of scanning signal lines which correspond to an unscanned area based on the transition instruction signal.

6. (Currently Amended) The display device driving circuit as set forth in claim 5, wherein said scanning signal line driving section deactivates an operation of a display device, after simultaneously outputting the display scanning signals only to the plurality or more of scanning signal lines which correspond to the unscanned area and until next successive output is carried out, where in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated.

7. (Currently Amended) The display device driving circuit as set forth in claim 1, wherein said control means controls the scanning signal line driving section based on the transition instruction signal so that the display scanning signals are simultaneously outputted within one horizontal period to the plurality or more of scanning signal lines of the one or more non-image areas.

8. (Currently Amended) The display device driving circuit as set forth in claim 1, wherein said control means controls the scanning signal line driving section based on the transition instruction signal so that the display scanning signals are simultaneously outputted within two horizontal periods to the plurality or more of scanning signal lines of the one or more non-image areas.

9. (Currently Amended) A display device driving circuit which includes comprising:
_____ a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines for displaying an image according to the display data with respect to pixels which are disposed in a matrix; and
_____ a control section including a set section in which is set each of an image display area and one or more non-image areas, each of the one or more non-image areas comprising a plurality or more of scanning lines and which wherein said control section is configured and arranged to determine from inputs thereto if the image data to be outputted corresponds to any of the one or

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more non-image areas and so as to output outputs a transition instruction signal for each of the one or more non-image areas when it is so determined; and ;

wherein said display device driving circuit comprising scanning signal line driving section includes:

input means for receiving the transition instruction signal from said control section, the transition instruction signal for causing a transition from successive output to simultaneous output with respect to the output of the display scanning signals to the respective plurality or more of scanning signal lines of each of the one or more non-image areas; and

control means for switching, from successive output to simultaneous output, the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines based on the received transition instruction signal, so as to cause a transition from successive output of display scanning signals to simultaneous output of display scanning signals, and for controlling the scanning signal line driving section based on the received transition instruction signal so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more of scanning signal lines of each of the one or more non-image areas until receipt of an instructional signal of a start of a next successive output for successively outputting the display scanning signals.

10. (Original) The display device driving circuit as set forth in claim 9, wherein said scanning signal line driving section includes a plurality of serially connected shift register

sections for outputting the display scanning signals with respect to the respective scanning signal lines.

11. (Currently Amended) The display device driving circuit as set forth in claim 9, wherein said control means includes deactivating means for deactivating an operation of the scanning signal line driving section based on a synchronize signal and the transition instruction signal for displaying the image, where in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated.

12. (Currently Amended) The display device driving circuit as set forth in claim 9, wherein said control means includes an unscanned area recognizing section for recognizing an unscanned area based on the transition instruction signal, and wherein said control means controls the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are outputted only to the plurality or more of those scanning signal lines which correspond to the unscanned area as recognized by the unscanned area recognizing section.

13. (Currently Amended) The display device driving circuit as set forth in claim 10, wherein said scanning signal line driving section has a plurality of scanning starting positions which are set in a vertical direction, and successively outputs, among the plurality of scanning starting positions, the display scanning signals to scanning signal lines which correspond to one

of the one or more non-image areas, which is an area from a scanning starting position therein in the vicinity of a front portion of the image display area to the image display area, and to scanning signal lines which correspond to the image display area, and thereafter simultaneously outputs the display scanning signals to the plurality or more of scanning signal lines which correspond to an unscanned area based on the transition instruction signal.

14. (Currently Amended) The display device driving circuit as set forth in claim 13, wherein said scanning signal line driving section deactivates an operation of a display device, after simultaneously outputting the display scanning signals only to the plurality or more of scanning signal lines which correspond to the unscanned area and until next successive output is carried out, wherein in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated.

15. (Currently Amended) The display device driving circuit as set forth in claim 9, wherein said control means controls the scanning signal line driving section based on the transition instruction signal so that the display scanning signals are simultaneously outputted within one horizontal period to the plurality or more of scanning signal lines of the one or more non-image areas.

16. (Currently Amended) The display device driving circuit as set forth in claim 9, wherein said control means controls the scanning signal line driving section based on the

transition instruction signal so that the display scanning signals are simultaneously outputted within two horizontal periods to the plurality or more of scanning signal lines of the one or more non-image areas.

17. (Currently Amended) A driving method of a display device which outputs display scanning signals respectively to scanning signal lines, and outputs display data signals respectively to data signal lines, so as to display an image which is in accordance with the display data with respect to pixels which are disposed in a matrix, and has a partial display function for one or more non-image areas comprising a plurality or more or of scanning signal lines and an image display area, said driving method comprising the step of:

outputting a transitional instructional signal for each of the one or more non-image areas when it is determined that the image data to be outputted is that for any of the one or more non-image areas and not outputting the transitional instructional signal when it is determined that the image data to be outputted is that for the image display area; and

simultaneously outputting the display scanning signals with respect to the plurality of scanning signal lines of each of the one or more non-image areas based on the outputted transition instruction signal so as to cause a transition from successive output of display scanning signals to simultaneous output of display scanning signals, so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more of scanning signal lines for the one or more non-image areas until receipt of an instructional signal of a start of a next successive output for successively outputting the display scanning signals.

18. (Currently Amended) The method as set forth in claim 17, further comprising the step of deactivating the display device so that the driving device is not capable of fully performing normal operational functions, wherein said deactivating includes an operation of a display device is deactivated, deactivating the display device after simultaneously outputting the display scanning signals only to the plurality or more of scanning signal lines which correspond to the unscanned area based on the transition instruction signal and until next successive output is carried out.

19. (Currently Amended) The method as set forth in claim 17, wherein, among a plurality of scanning starting positions which are set in a vertical direction, the display scanning signals are successively outputted to scanning signal lines which correspond to one of the one or more non-image areas, which is an area from a scanning starting position therein in the vicinity of a front portion of the image display area to the image display area, and to scanning signal lines which correspond to the image display area, and thereafter the display scanning signals are simultaneously outputted to a plurality or more of scanning signal lines which correspond to an unscanned area based on the transition instruction signal.

20. (Currently Amended) The method as set forth in claim 17, wherein the display scanning signals are simultaneously outputted based on the transition instruction signal to each of

a first line group and a second line group of the plurality or more of scanning signal lines which correspond to an unscanned area.

21. (Currently Amended) The method as set forth in claim 17, further comprising the steps of:

outputting display scanning signals when successively outputting display scanning signals at one frequency, and

outputting display scanning signals when simultaneously outputting display scanning signals at another frequency, where the another frequency is different from said one frequency,
wherein frequencies of the display scanning signals are different between successive output and simultaneous output of the display scanning signals with respect to the scanning signal lines.

22. (Currently Amended) The method as set forth in claim 17, wherein said simultaneously outputting includes simultaneously outputting display scanning signals according to the one or more non-image areas are simultaneously outputted within one horizontal period with respect to the plurality or more of scanning signal lines which correspond to the one or more non-image areas.

23. (Currently Amended) The method as set forth in claim 17, wherein simultaneously scanning includes simultaneously scanning display scanning signals according to the one or more

non-image areas are simultaneously outputted within two horizontal periods with respect to the plurality or more of scanning signal lines which correspond to the one or more non-image areas.

24. (Currently Amended) A driving method of a display device which outputs display scanning signals respectively to scanning signal lines, and outputs display data signals respectively to data signal lines, so as to display an image which is in accordance with the display data with respect to pixels which are disposed in a matrix, and has a partial display function for a non-image area comprising a plurality or more of scanning lines and an image display area,

said method comprising the steps of:

distinguishing a predetermined image display area and a predetermined non-image area from each other;

simultaneously outputting the display scanning signals and the display data signals according to the non-image area with respect respectively to the respective plurality or more of scanning signal lines of the non-image area and the respective data signal lines which correspond to the non-image area responsive to said distinguishing; and

following said simultaneously outputting, deactivating operation of the scanning signal line driving section until next display is carried out, where in the deactivated condition at least a portion of the scanning signal line driving section is functionally deactivated.

25. (Currently Amended) The method as set forth in claim 24, wherein said simultaneously outputting includes simultaneously outputting display scanning signals according

to the non-image area are simultaneously outputted within one horizontal period with respect to the plurality or more of scanning signal lines which correspond to the non-image area.

26. (Currently Amended) The method as set forth in claim 24, wherein said simultaneously outputting includes simultaneously outputting display scanning signals according to the non-image area are simultaneously outputted within two horizontal periods with respect to the plurality or more scanning signal lines which correspond to the non-image area.

27. (Currently Amended Presented) An image display device which includes comprising:

_____ a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines,

_____ a data signal line driving section for outputting display data signals respectively to data signal lines, so as to display an image according to the display data with respect to pixels which are disposed in a matrix, said pixels having a partial display function for an image display area including a plurality or more of scanning signal lines and a non-image area,

_____ said image display device comprising:

means for distinguishing the image display area and the non-image area from each other and for outputting a transition instructional signal for the non-image area responsive to said distinguishing; and

scanning signal line control means for switching, ~~from successive output to simultaneous output, the output of the display scanning signals to the respective scanning signal lines from the scanning signal driving section, based on the outputted transition instruction signal so as to cause a transition from successive output of display scanning signals to simultaneous output of display scanning signals, and for controlling the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines based on the outputted received transition instruction signal, so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more scanning signal lines for the non-image area until receipt of an instructional signal of a start of a next successive output for successively outputting the display scanning signals.~~

28. (Currently Amended) The image display device as set forth in claim 27, wherein said scanning signal line driving section includes a plurality of serially connected shift register sections for outputting the display scanning signals to the respective scanning signal lines and includes a plurality of scanning starting positions which are set in a vertical direction, said scanning signal line driving section successively outputting, among the plurality of scanning starting positions, the display scanning signals to scanning signal lines which correspond to the non-image area, which is an area from a scanning starting position therein in the vicinity of a front portion of the image display area to the image display area, and to scanning signal lines which correspond to the image display area, and thereafter simultaneously outputting, based on

the outputted transition instruction signal, the display scanning signals to the plurality or more of scanning signal lines which correspond to an unscanned area.

29. (Currently Amended) The image display device as set forth in claim 27, wherein said scanning signal line control means controls the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that an operation of the image display device is deactivated after simultaneously outputting the display scanning signals only to the plurality or more scanning signal lines which correspond to the unscanned area based on the outputted transition instruction signal and until next successive output is carried out, where in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated.

30. (Currently Amended) The image display device as set forth in claim 27, wherein said scanning signal line control means controls the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines based on the outputted transition instruction signal so that the display scanning signals are simultaneously outputted to each of a first line group and a second line group of the plurality or more of scanning signal lines which correspond to an unscanned area.

31. (Currently Amended) The image display device as set forth in claim 27, wherein said scanning signal line control means controls the scanning signal line driving section based on the

outputted transition instruction signal so that the display scanning signals are outputted simultaneously within one horizontal period with respect to the plurality or more of scanning signal lines of the non-image area.

32. (Currently Amended) The image display device as set forth in claim 27, wherein said scanning signal line control means controls the scanning signal line driving section based on the outputted transition instruction signal so that the display scanning signals are outputted simultaneously within two horizontal periods with respect to the plurality or more of scanning signal lines of the non-image area.

33. (Currently Amended) An image display device which includes comprising:

_____ a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines,

_____ a data signal line driving section for outputting display data signals respectively to data signal lines, and

_____ a set section for setting an image display area according to the display data and a non-image area with respect to pixels, so as to display an image according to the display data with respect to the pixels which are disposed in a matrix and for outputting a transition instruction signal when the display scanning signals to be outputted are for the non-image area,

— said image display device comprising:

scanning signal line control means for controlling the scanning signal line driving section, the scanning signal line control means being configured and arranged so that the display scanning signals are simultaneously outputted with respect to the plurality or more respective of scanning signal lines which correspond to the non-image area as set by the set section responsive to the outputted transition instruction signal,

the scanning signal line driving section including a plurality of serially connected shift register sections for outputting the display scanning signals respectively to the scanning signal lines,

the scanning signal line control means individually and simultaneously scanning the shift register sections in the non-image area, and

wherein to the serially connected shift registers, respective start pulse signals are supplied and being signaled by the start pulse signalssinglas, scanning of the scanning signal lines is started.

34. (Original) The image display device as set forth in claim 33, comprising data signal line control means for controlling the data signal line driving section so as to output the display data signals for the non-image area to the respective data signal lines when the display scanning signals are simultaneously outputted.

35. (Currently Amended) The image display device as set forth in claim 33, comprising first deactivating means for deactivating an operation of the data signal line driving section after the simultaneous output and until next successive output with respect to a horizontal period based on the display data, where in the deactivated condition at least a portion of the data signal line driving section is functionally deactivated.

36. (Currently Amended) The image display device as set forth in claim 33, comprising second deactivating means for deactivating an operation of the scanning signal line driving section after the simultaneous output and until next successive output with respect to a horizontal period based on the display data, where in the deactivated condition at least a portion of the scanning signal line driving section is functionally deactivated.

37. (Currently Amended) The image display device as set forth in claim 33, further comprising a first clock generating means for generating wherein a first clock signal for displaying the image display area and a second clock generating means for generating a second clock signal for displaying the non-image area, wherein the first and second clock signals being generated are different from each other.

38. (Currently Amended) The image display device as set forth in claim 33, wherein said scanning signal line control means controls the scanning signal line driving section based on the outputted transition instruction signal so that the display scanning signals are outputted

simultaneously within one horizontal period with respect to the plurality or more scanning signal lines of the non-image area.

39. (Currently Amended) The image display device as set forth in claim 33, wherein said scanning signal line control means controls the scanning signal line driving section based on the outputted transition instruction signal so that the display scanning signals are outputted simultaneously within two horizontal periods with respect to the plurality or more of scanning signal lines of the non-image area.

40. (Currently Amended) The method as set forth in claim 17, wherein the display scanning signals are outputted based on the outputted transition instruction signal simultaneously to an odd-numbered line group of the plurality or more of scanning signal lines that correspond to an unscanned area and simultaneously to an even-numbered line group of the plurality or more of scanning signal lines that correspond to the unscanned area.

41. (Currently Amended) The method as set forth in claim 17, wherein the display scanning signals are outputted based on the outputted transition instruction signal simultaneously to odd-numbered pairs of adjacent ones of the plurality or more of scanning signal lines that correspond to an unscanned area and simultaneously to even-numbered pairs of adjacent ones of the plurality or more of scanning signal lines that correspond to the unscanned area.

42. (Currently Amended) A display device driving circuit which includes a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines for displaying an image according to the display data with respect to pixels which are disposed in a matrix, said display device driving circuit comprising:

means for distinguishing an image display area and a non-image area from each other and for outputting a transition instructional signal for the non-image area;

deactivating means for deactivating operation of the scanning signal line driving section based on a synchronize signal for image display and based on the transition instruction signal, where in the deactivated condition at least a portion of said scanning signal line driving section is functionally deactivated; and

control means for switching, from successive output to simultaneous output, the output of the display scanning signals to the respective scanning signal lines based on the transition instruction signal so as to cause a transition from successive output of display scanning signals to simultaneous output of display scanning signals, and for controlling the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines based on the received transition instruction signal, so that the display scanning signals are outputted simultaneously within one horizontal period or two horizontal periods with respect to all of a plurality or more of scanning signal lines of the non-image area until next scanning is started.

43. (Currently Amended) A driving method of a display device which outputs display scanning signals respectively to scanning signal lines, and outputs display data signals respectively to data signal lines, so as to display an image which is in accordance with the display data with respect to pixels which are disposed in a matrix, the display device having a partial display function for a non-image area comprising a plurality or more of scanning signal lines and an image display area, horizontal signal lines in a vertical period of the display device being greater in number than the scanning signal lines, said method comprising the step of:

simultaneously outputting the display scanning signals and the display data signals according to the non-image area with respect to the respective plurality or more of scanning signal lines and the respective data signal lines that correspond to the non-image area; and
wherein the number of horizontal signal lines in a vertical period shall be understood to correspond to the number of scanning signal lines of input video signals.

44. (Currently Amended) A display device driving circuit for a display that is divided into an image display area in which full image display function is allowed and one or more non-image areas at least one of comprising a plurality or more of scanning signal lines having a partial image display function; said display device driving circuit comprising:

a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines for displaying an image according to the display data with respect to pixels which are disposed in a matrix;

output control circuitry that is configured and arranged so as to distinguish between the image display area and the one or more non-image areas, where an external transition signal is inputted to the control circuitry so as to identify each of the one or more non-display areas and so as to switch the output of the display scanning signals from the scanning line driving section to the respective plurality or more of scanning signal lines of the one or more non-image areas between one of a successive display scanning signal output mode and a simultaneous display scanning signal output mode responsive to such distinguishing;

wherein the output control circuitry is configured and arranged so the output of the display scanning signals from the scanning line driving section to the respective scanning signal lines is in the simultaneous output mode, responsive to the receipt of the transition instruction signal, and so as to control the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more of scanning signal lines; and

wherein the output control circuitry is configured and arranged so the output of the display scanning signals from the scanning line driving section to the respective scanning signal lines is in the successive output mode when the output control circuitry distinguishes the display area and so as to control the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are successively outputted to the respective scanning signal lines for the display area.

45. (Currently Amended) The display device driving circuit of claim 44, wherein the output control circuitry includes an un-scanned area recognizing section that is configured and arranged so as to recognizing that an area that has not been scanned responsive to the external transitional instruction signal, and

wherein the output control circuitry is configured and arranged so the output of the display scanning signals from the scanning line driving section to the respective scanning signal lines is in the simultaneous output mode, responsive to the receipt of the transition instruction signal, and so as to control the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are outputted simultaneously only to the plurality or more of those scanning signal lines which correspond to the unscanned area as recognized by the unscanned area recognizing section.

46. (Previously Presented) The display device driving circuit of claim 44, wherein the output control circuitry includes an input section and a scanning area judging section;

wherein the input section is configured and arranged so as to generate a first pulse signal responsive to the received transitional instruction signal;

wherein the judging section is configured and arranged so as to judge an area to be one of the one or more non-image areas when a first pulse signal is received from the input section and to judge the area to be the image display area when there is no first pulse signal.

47. (Previously Presented) The display device driving circuit as set forth in claim 46, wherein said scanning signal line driving section includes a plurality of serially connected shift register sections for outputting second pulse signals therefrom to the judging section; and

wherein the judging section is configured and arranged so as to judge the area to be the image display area when second pulse signals are received and there is no first pulse signal.

48. (Previously Presented) The display device driving circuit as set forth in claim 47, wherein the judging section includes a plurality of logic elements one for each of the plurality of shift register sections and each of the plurality of logic elements are arranged so as to be operably coupled to a respective one of the plurality of shift register sections and to the input section.

49. (Previously Presented) The display device driving circuit as set forth in claim 47, wherein said scanning signal line driving section further includes a level shifter and wherein said judging section is operably coupled between the level shifter and each of the shift register sections and the input section.

50. (Previously Presented) The display device driving circuit as set forth in claim 49, wherein the judging section includes a plurality of logic elements one for each of the plurality of shift register sections and each of the plurality of logic elements are arranged so as to be operably coupled to a respective one of the plurality of shift register sections, to the input section and to the level shifter.

51. (Currently Amended) The display device driving circuit as set forth in claim 47, wherein said scanning signal line driving section has a plurality of scanning starting positions which are set in a vertical direction, and successively outputs, among the plurality of scanning starting positions, the display scanning signals to scanning signal lines which correspond to one of the one or more non-image areas, which is an area from a scanning starting position therein in the vicinity of a front portion of the image display area to the image display area, and to scanning signal lines which correspond to the image display area, and thereafter simultaneously outputs the display scanning signals to the plurality or more of scanning signal lines which correspond to an unscanned area based on the transition instruction signal.

52. (Currently Amended) The display device driving circuit as set forth in claim 44, wherein said output control circuitry is configured and arranged so as to control the scanning signal line driving section based on the transition instruction signal so that the display scanning signals are simultaneously outputted within one horizontal period to the plurality or more of scanning signal lines of the one or more non-image areas.

53. (Currently Amended) The display device driving circuit as set forth in claim 44, wherein said output control circuitry is configured and arranged so as to control the scanning signal line driving section based on the transition instruction signal so that the display scanning

signals are simultaneously outputted within two horizontal periods to the plurality or more of scanning signal lines of the one or more non-image areas.

54. (Currently Amended) An image display device comprising:

 a scanning signal line driving section for outputting display scanning signals respectively to scanning signal lines,

 a data signal line driving section for outputting display data signals respectively to data signal lines,

 a set section for setting an image display area according to the display data and one or more non-image areas with respect to pixels, so as to display an image according to the display data with respect to the pixels which are disposed in a matrix, where at least one of the one or more non-image areas comprises a plurality or more of scanning signal lines,

 output control circuitry that is configured and arranged so as to distinguish between the image display area and the one or more non-image areas, where an external transition signal is inputted to the control circuitry so as to identify each of the one or more non-display areas as set in the setting section and so as to switch the output of the display scanning signals from the scanning line driving section to the respective plurality or more of scanning signal lines for any of the one or more non-image areas between one of a successive display scanning signal output mode and a simultaneous display scanning signal output mode responsive to such distinguishing;

 wherein the output control circuitry is configured and arranged so the output of the display scanning signals from the scanning line driving section to the respective scanning signal

lines is in the simultaneous output mode, responsive to the receipt of the transition instruction signal, and so as to control the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are outputted simultaneously with respect to all of the plurality or more of scanning signal lines; and wherein the output control circuitry is configured and arranged so the output of the display scanning signals from the scanning line driving section to the respective scanning signal lines is in the successive output mode when the output control circuitry distinguishes the display area and so as to control the output of the display scanning signals from the scanning signal line driving section to the respective scanning signal lines so that the display scanning signals are successively outputted to the respective scanning signal lines for the display area.

55. (Previously Presented) The display device of claim 54, wherein:
the output control circuitry includes an input section and a scanning area judging section, where the input section is configured and arranged so as to generate a first pulse signal responsive to the received transitional instruction signal;
said scanning signal line driving section includes a plurality of serially connected shift register sections for outputting second pulse signals therefrom to the judging section; and the judging section is configured and arranged so as to judge an area to be one of the one or more non-image areas when a first pulse signal is received from the input section and to judge the area to be the image display area when there is no first pulse signal and second pulse signals are being received.

56. (Previously Presented) The display device as set forth in claim 55, wherein the judging section includes a plurality of logic elements one for each of the plurality of shift register sections and each of the plurality of logic elements are arranged so as to be operably coupled to a respective one of the plurality of shift register sections and to the input section.

57. (Previously Presented) The display device as set forth in claim 55, wherein said scanning signal line driving section further includes a level shifter and wherein said judging section is operably coupled between the level shifter and each of the shift register sections and the input section.

58. (Previously Presented) The display device driving circuit as set forth in claim 57, wherein the judging section includes a plurality of logic elements one for each of the plurality of shift register sections and each of the plurality of logic elements are arranged so as to be operably coupled to a respective one of the plurality of shift register sections, to the input section and to the level shifter.